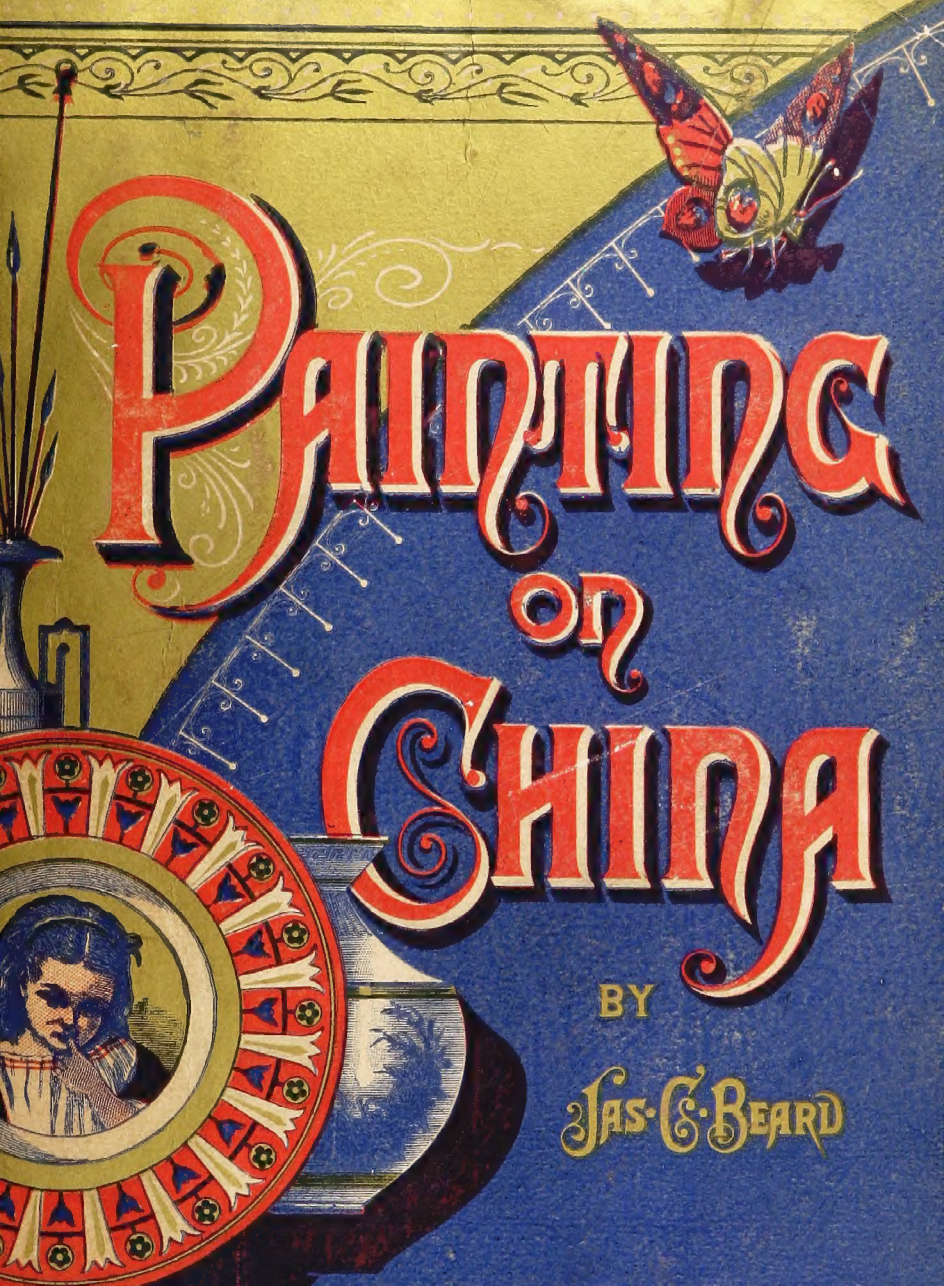




PAINTING ON CHINA

BY

JAS. C. BEARD

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PAINTING ON CHINA

WHAT TO PAINT AND HOW TO PAINT IT

A HAND-BOOK OF PRACTICAL INSTRUCTION

IN

OVERGLAZE PAINTING

FOR

AMATEURS IN THE DECORATION OF HARD PORCELAIN

BY

JAMES C. BEARD.

"Practice, and let Theory take care of itself."—CARLYLE.

NEW YORK:

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PAINTING ON CHINA.

INTRODUCTION.



HIS little work is not only intended as a guide to the particular art of china painting, but is especially designed to meet the needs of those who may be unaccustomed to the use of either brush or pencil.

With this end in view, the strict attention which will be given to practical detail, and the careful instruction in the rudiments of the art may prove somewhat fatiguing to those who, already experienced in oil and water colors, desire only such instruction as will aid them in the use of mineral colors upon the glazed surface of hard porcelain.

Let these amateurs in china painting remem-

ber that the most skillful artists have failed in attempts at china decoration through ignorance of a few secrets pertaining to this art alone, which, when learned, seem simple enough, but by their intelligent use enable the artist to produce results that add materially to our home decoration.

First attempts are always more or less discouraging. Difficulties, unknown in oil painting, are here encountered at every step; but these difficulties, insurmountable by the uninitiated, are, after a little careful study, easily overcome.

For the encouragement of beginners it may also be said that if obstacles are encountered in the first "manipulation" of the vitrifiable colors used in china-painting, so also are more agreeable results possible from the hands of the amateur than in any other branch of art; and articles in china, decorated by purely mechanical means, sometimes compare favorably with the valuable productions of accomplished artists.

Success in this art depends greatly upon the

patience and perseverance of the decorator, and a proper selection of colors, brushes, etc. It may also be added that perfect order and cleanliness are not only desirable but positively necessary in order to obtain satisfactory results.

It would be hard to find an accomplishment more refined or elegant, or that will yield a better return for the time, labor, and thought expended on it, than china painting.

Many beautiful and original modes of decoration, and, it may be added, many novel and interesting artistic ideas, which would otherwise lie dormant, may here find expression as the tyro in this branch of art becomes more proficient and better able to finish and perfect the work. Many persons in the great cities earn a comfortable livelihood by practising this branch of art, and, in proportion as they excel, find both profit and delight in its pursuit.

REQUISITE MATERIALS.



THE materials used in china painting are few and simple. The list here given contains those in general use :

1. *A set of brushes*, consisting of a fine pointed camel's-hair brush for outlining; two or three brushes, medium size, with good points; a brush with long hair and square point for gilding edges and pointing or gilding narrow bands; two or three flat brushes, varying in size from a quarter of an inch to one inch in width, for flat tints, tinted grounds, broad bands, etc.; several large fitch blenders or dabbers, sometimes used for laying flat tints and grounds, but a dabber made by tying a piece of chamois skin over a flattened ball of soft cotton of the size required is preferable.

2. *A slab of ground glass*, six inches square,

on which colors are mixed and prepared by rubbing smooth with oil.

3. *A china palette.*

4. *Two palette-knives*, one steel, and the other horn or ivory.

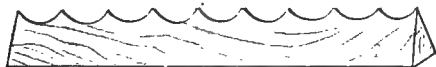
5. *Small wire easels*, for holding originals which are to be copied on the china.

6. *A large easel* for holding large tiles or plaques to be decorated.

7. *A mahl-stick* to be used as a support for the right hand in decorating large pieces. It is held in the left hand with the end resting on the article to be painted.

8. *A rest for the hand* used in smaller work, and consisting of a strip of wood about three inches wide, and eighteen inches long, and supported at both ends by blocks of wood, each as wide as the strip, and two inches high.

9. *A rest for brushes*, consisting of a narrow

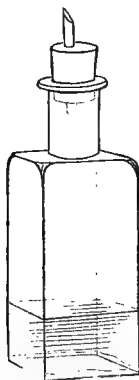


BRUSH REST.

strip of wood a foot long, with notches cut for

keeping the brushes from contact with the table.

10. *A box* containing a needle fixed in a wooden handle, for removing specks of lint or dust from the painting; a penknife; two or three pieces of soft wood with blunt points, which, dipped in turpentine, are used for removing spots of color from the china; two lead-pencils, Faber's, hard and soft; also Faber's



DROP BOTTLE.

pencil for marking on china; a small paint dish; a steel pen; tracing paper; red transfer paper; a stick of modeling wax; some large wafers;

three small drop bottles for measuring oil and spirits ; a stick of India ink.

11. *Alcohol*, a quart bottle.

12. *Spirits of turpentine*, a quart bottle.

13. *Oil of turpentine*, a small bottle. Although "oil of turpentine" and "spirits of turpentine" are usually synonymous, they have a different meaning assigned to them in this work. The oil of turpentine referred to, is prepared by allowing spirits of turpentine to evaporate until it resembles a "*fat oil*." This is done by pouring a few drops of the spirits into a saucer, and exposing it to the open air, without any aid of artificial heat ; adding a few more drops every day, until a sufficient quantity of fat oil has been obtained.

14. *Oil of lavender*, a small bottle.

15. *Ox gall*, a small bottle.

16. *Plenty of rag* without lint.

17. *A cup* for holding turpentine.

18. *Chamois skin* for making dabbers.

19. *A set of La Croix's tube-colors*. These colors are considered the best, and directions for

using these alone are given in this work. The decorator must be warned that La Croix's colors will not mix with those of any other maker.

It is very important that the artist should be acquainted with the different minerals used in the composition of these colors. Those containing iron will not mix well with other colors, and the colors obtained from gold, silver, and tin require somewhat careful treatment.

A thorough knowledge of this is essential in the application of colors to china-painting; colors promiscuously blended, without reference to their composition, may become entirely changed after exposure to a high degree of heat in baking.

La Croix's classification of colors is as follows:

First Group.—Colors that do not contain any iron: 1st the whites, 2d the blues, 3d the colors from gold.

Second Group.—Colors with but little trace of iron. This group includes the yellows and greens, several of which colors contain iron in small quantities.

Third Group.—Colors with an iron basis, or of which iron is one of the coloring parts, 1st the reds, fleshs, red browns, and violets of iron ; 2d the browns, yellow browns, ochres, blacks, and a greater part of the greys. The enamel colors usually designated as *iron colors* are : all the browns ; the greys, excepting platina grey ; the blacks, except iridium black ; the ochres ; the reds, and the violets of iron.

The enamel colors with a *golden* basis are : the carmines, crimson lake, the purples, and the violets of gold. *Whites* are usually enamels of tin ; *blues* have for their basis cobalt ; *greens* are obtained from chromium.

The following table is prepared from a careful study of the equivalent colors in oil, water, and vitrifiable pigments, so that any manual of instruction in painting in oil or water, can, by a comparison with the list, be made to apply equally well to painting on china. In order to do this, all the colors used in china-painting are mentioned, but a much smaller list of pigments will be given for the use of beginners.

TABLE OF LA CROIX'S TUBE-COLORS.

OIL.	LA CROIX'S TUBE-COLORS.	BASIS.
	Chinese White (<i>Blanc Chinois</i>).....	No Iron.
	Permanent White (<i>Blanc fixé</i>).....	"
	Azure Sky Blue (<i>Bleu ciel azuré</i>).....	"
	Light Sky Blue (<i>Bleu ciel clair</i>).....	"
	Dark Blue (<i>Bleu foncé</i>).....	"
	Smalt, Victoria Blue (<i>Bleu ordinaire</i>).....	"
Cobalt	Deep Ultramarine (<i>Bleu outremer riche</i>)....	"
	Deep Blue (<i>Bleu riche</i>).....	"
Blue verditer.....	$\frac{2}{3}$ Ultramarine, $\frac{1}{3}$ Deep Blue Green.....	Comb'ns.
Marine Blue	$\frac{1}{3}$ Victoria Blue, $\frac{2}{3}$ Carmine, No. 2.....	
Prussian Blue	$\frac{1}{3}$ Dark Blue, $\frac{1}{3}$ Victoria, $\frac{1}{3}$ Ultramarine,	
	Grey, No. 2, a touch of Purple.....	
Indigo Blue	Dark Blue with a touch of Raven Black ..	Iron.
	Brown, No. 3 (<i>Brun 3, bitume</i>).....	
	Brown, No. 4, or 17 (<i>Brun. 4, foncé ou 17</i>)..	
	Brown M., or 108 (<i>Brun M., or 108</i>).....	
	Dark Brown (<i>Brun foncé</i>).....	"
	Deep Red-Brown (<i>Brun rouge riche</i>).....	"
	Light Brown (<i>Brun clair</i>).....	"
	Yellow Brown (<i>Brun jaune</i>).....	"
Raw Sienna	Sepia (<i>Brun sepia</i>).....	Gold.
	Light Carmine, A (<i>Carmin tendre, A</i>).....	
	Light Carmine, No. 1 (<i>Carmin tendre, No. 1</i>)	
	Carmine, No. 2 (<i>Carmin, No. 2</i>).....	
	Deep Carmine, No. 3 (<i>Carmin, No. 3, foncé</i>)	"
Light Pink	Light Carmine, A, and Light Carmine, No. 1)	"
Deeper Pink.....	Carmine, No. 2 (Deep Carmine, No. 3).....	"
	Carnation, No. 1 (<i>Rouge Chair, No. 1</i>).....	"
	Deep Carnation (<i>Rouge Chair foncé</i>).....	"
	Purple, No. 2 (<i>Pourpre, No. 2</i>).....	"
	Crimson Lake (<i>Laque Carminé</i>).....	"
	Crimson Purple (<i>Pourpre Carmine</i>).....	"
	Deep Red Purple (<i>Pourpre riche</i>).....	"
	Ruby Purple (<i>Pourpre rubis</i>).....	"
Purple Lake.....	Carmine, No. 1, and a touch of Purple.....	Comb'ns. Gold.
Peony Pink	$\frac{1}{3}$ Ruby Purple, $\frac{2}{3}$ Carmine, No. 1.....	
Chinese Pink.....	Carmine, No. 3, and a touch of Ruby Purple	
	Grass Green, No. 4 (<i>Vert, No. 5, p. d.</i>).....	
	Brown Green, No. 6 (<i>Vert, No. 6, brun</i>).....	Chromium.
	Dark Green, No. 7 (<i>Vert, No. 7, noir</i>).....	
	Green, No. 36, T (<i>Vert, No. 36, T</i>).....	
	Apple Green (<i>Vert pomme</i>).....	
	Deep Blue-Green (<i>Vert bleu riche</i>).....	"
	Chrome Green, 3 B (<i>Vert chrome, 3 B</i>).....	"
	Deep Chrome-Green (<i>Vert chrome riche</i>).....	"
	Deep Green (<i>Vert russe</i>).....	"
	Emerald-stone Green (<i>Vert émeraude</i>).....	"
Bottle or.....	Sap Green (<i>Vert de vessie</i>).....	"
Water Green.....	$\frac{1}{3}$ Apple Green, $\frac{2}{3}$ Deep Blue-Green	"
Veronese Green	$\frac{1}{3}$ Apple Green, $\frac{2}{3}$ Chrome, $\frac{1}{3}$ Emerald-stone	Comb'ns.
	Green	
Malachite Green.....	A touch of Emerald-stone Green, with	
	Apple Green.....	
Emerald Green.....	$\frac{2}{3}$ Blue Green, $\frac{1}{3}$ Emerald-stone Green	"

LA CROIX'S TUBE-COLORS—*Continued.*

OIL.	LA CROIX'S TUBE-COLORS.	BASIS.
	Grey, No. 1, Light (<i>Gris, No. 1, ou tendre</i>)..	Iron.
	Grey, No. 2 (<i>Gris, No. 2</i>)	
	Pearl Grey, No. 6 (<i>Gris, No. 6, perle</i>)	
	Neutral Grey (<i>Gris noir</i>)	
Russet or.....	Warm Grey (<i>Gris roux</i>)	"
Brown Grey.....	Grey and Sepia.....	Com.
Ash Grey.....	Light Grey, with a touch of Sky Blue....	
	Platina Grey (<i>Gris de Platina</i>)	No. Iron.
	Yellow Ochre (<i>Ocre</i>)	Iron.
	Dark Ochre (<i>Ocre foncé</i>)	"
	Capucine Red (<i>Rouge capucine</i>)	"
	Lakey Red (<i>Rouge lakeux</i>)	"
	Orange Red (<i>Rouge orange</i>)	"
Poppy Red.....	† Capucine Red, ‡ Deep Purple, No. 3....	Com. Iron.
Madder Red.....	Capucine Red, with a touch of Purple and Carmine, No. 3.....	
	Violet of Iron (<i>Violet de fer</i>)	
	Grey Violet of Iron (<i>Violet de fer tinte grise</i>)	
	Flesh Tint, No. 1 (<i>Rouge chair, No. 1</i>)	"
	Flesh Tint, No. 2 (<i>Rouge chair, No. 2</i>)	"
	Deep Flesh (<i>Rouge chair foncé</i>)	"
Naples or.....	Ivory Yellow (<i>Jaune d'ivoire, 47, de Sèvres</i>)	No Iron.
Light Chrome Yellow.	Jonquil Yellow (<i>Jaune Jonquille</i>)	
Yellow Lake.....	Yellow for mixing (<i>Jaune à meler, 41, de Sèvres</i>)	"
	Orange Yellow (<i>Jaune orange</i>)	Iron.
	Permanent Yellow (<i>Jaune fixe</i>)	"
	Silver Yellow (<i>Jaune d'argent</i>)	"
Indian Yellow.....	† Jonquil Yellow, ‡ Ochre	Combinations. Iron.
Maize.....	† Ivory Yellow, ‡ Orange Yellow	
Dark Chrome Yellow.	Silver Yellow, with touch of Jonquil Yellow	"
Straw Color.....	Light wash of Yellow for mixing	No Iron.
Salmon.....	‡ Ivory Yellow, ‡ Flesh, No. 2, a touch of Carmine, 3.....	Combinations. Iron.
Saffron Yellow.....	‡ Ivory Yellow, ‡ Flesh, No. 1, a touch of Capucine Red.....	
Golden Yellow.....	† Silver Yellow, ‡ Jonquil Yellow	"
Lemon Yellow.....	Ivory Yellow, a touch of Silver Yellow	"
	Deep Violet of Gold (<i>Violet d'or foncé</i>)	Gold.
	Light Violet of Gold (<i>Violet d'or clair</i>)	"
Light Pansy.....	Light Violet of Gold, a touch of Deep Ultra- marine	Com.
Deep Pansy.....	Deep Violet of Gold, a touch of Ultra- marine	
	Raven Black (<i>Noir corbeau</i>)	Iron.
	Iridium Black (<i>Noir d'iridium</i>)	No iron.
	Ivory Black (<i>Noir d'ivoire</i>)	Iron.

This list contains all the vitrifiable colors manufactured for painting upon china, landscapes, heads, figure subjects, animals, Chinese and Japanese styles, fruits, flowers, etc. A special list of colors that can only be used for grounds will be given under the head of "Grounds."

The colors most in use for ordinary painting are—

Dark blue (*Bleu foncé*).
Ultramarine (*Bleu outremer riche*).
Light brown (*Bleu clair*).
Dark brown (*Brun foncé*).
Light carmine A (*Carmin tendre A.*)
Deep carmine, No. 3 (*Carmin No. 3 foncé*).
Neutral grey (*Gris noir*).
Jonquil yellow (*Faune jonquille*).
Yellow for mixing (*Faune à mêler*).
Ivory black (*Noir d'ivoire*).
Crimson purple (*Pourpre cramois*).
Deep purple (*Pourpre riche*).
Grass green (*Vert No. 5 pré*).
Chrome green (*Vert chrome, 3 B.*)
Violet of gold (*Violet d'or foncé*).
Capucine red (*Rouge capucin*).

By a thorough understanding of the colors contained in this last list, and a knowledge of

possible combinations gained from a study of the Table of Colors, a great many styles of decorations can be successfully attempted.

It needs practice to know exactly what colors and what proportion of each will result in any desired tint.

The following list of fifteen colors are those usually required for flower painting :

Grass green (*Vert No. 5 prêt*).
Capucine red (*Rouge capucin*).
Deep red-brown (*Brun rouge riche*).
Brown green (*Vert No. 6 brun*).
Mixing yellow (*Faune à mêler*).
Orange yellow (*Faune orange*).
Jonquil yellow (*Faune jonquille*).
Deep blue (*Bleu riche*).
Sky blue (*Bleu ciel azur*).
Deep purple (*Pourpre riche*).
Carnation, or flesh red No. 2 (*Rouge chair No. 2*).
Dark carmine (*Carmin No. 3 foncé*).
Golden violet (*Violet d'or*).
Iron violet (*Violet de fer*).
Neutral grey (*Gris noir*).

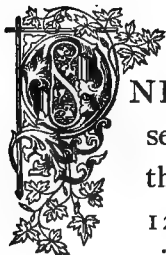
Still fewer colors than are here mentioned will enable the artist to decorate small pieces very prettily and tastefully with a

variety of flowers. The following list for instance :

Rose pompadour.
Grass green (*Vert No. 5 pré*).
Brown green (*Vert No. 5 brun*).
Orange yellow (*Faune orange*).
Jonquil yellow (*Faune jonquille*).
Rich purple (*Pourpre riche*).
Deep blue (*Bleu foncé*).
Green No. 1 light (*Gris No. 1 ou tendre*).

These eight colors, properly used, with their combinations, are all that are really necessary for most of the common field flowers, the wild rose, common rose, pansy, columbine, clover, buttercup, bluebell, forget-me-not, carnation pink, trailing arbutus, anemone, sunflower, and many others that will be suggested after becoming acquainted with the different tints and colors as they appear after firing. All the flowers here mentioned are found on the pretty decorated cards that are now so easily obtained, and after a little practice and study of directions which will be given later for using the colors, the groups of flowers on these cards will be quite readily copied.

USE OF MATERIALS,



ONE of the first and most important secrets of china painting consists in the use of the articles numbered 11, 12, 13, 14, 15, in the list of materials given on page 8, etc.

A material that assists in the use of a color is called a "*medium*;" and in china painting, spirits of turpentine, oil of turpentine, and oil of lavender are the "mediums" employed.

The spirits of turpentine is used with the vitrifiable colors in the same manner that water is used with water-colors.

It is spirits of turpentine that enables the decorator to make the very first success in his work.

In attempting to paint a figure, flowers, or fruit, the first thing to be considered, of course, is the sketching in of the outline. Very few,

unless professional artists or those having experience in drawing, will be able to at once, with the brush and color, successfully execute this outline, although, if this is possible, it is the better way, particularly in the case of flowers. It is necessary for the beginner, however, to make a carefully-drawn outline of the painting with a pencil and with the aid of tracing paper. (Directions for using this will be found under the head of "Tracing.") But what a miserable failure the pencil-mark is upon the glazed surface of the china! Many have given up in despair because of non-success in this simple experiment. Let these discouraged artists try again, and this time, before attempting to use the pencil, lightly *wipe over the surface of the china with a linen rag wet in spirits of turpentine*; allow this to dry, and then upon the surface thus prepared, try Faber's pencil B. The result now is satisfactory; the thin film of dried spirits upon the enamel allows each pencil-mark to "take hold."

After the artist has completed this pencilled

outline, it is necessary at once to go over these easily-erased pencil-marks with something more permanent. Some one suggests india-ink. Here another difficulty arises: the india-ink refuses to act well upon the china. The remedy in this case is the *extract of gall*. Two or three drops of this in a little india-ink, prepared in a small paint dish by rubbing the end of the stick of india-ink in a few drops of water, will bring as surprising results as the use of spirits of turpentine did in the case of lead-pencil marks.

Spirits of turpentine being the medium used with vitrifiable colors, as water is used with water-colors, a cup of the spirits must be always kept upon the table, and the brush should always be dipped in this before it is charged with color.

A color that is stiff can also be thinned with a few drops of spirits of turpentine added, and then rubbed smooth with the palette knife upon the glass slab.

Brushes should be repeatedly dipped in the

cup of turpentine to free them from one color before another is used.

Color can be removed from the china by gently rubbing the spot with the blunt end of a stick, over which is tied a linen rag, wetted with spirits of turpentine. *Alcohol* can also be used for this purpose, but must be carefully handled, as a drop falling upon the work will immediately remove all trace of color.

Alcohol must always be used for cleaning the brushes before putting them away. Turpentine injures the hairs if permitted to remain in them.

Oil of turpentine is the medium used for preparing the dry powdered colors for use; but as the La Croix tube-colors recommended in this work are already prepared, the oil will not be generally required, except with whites, blues, and carmines, which always act better after the addition of a drop or two of "fat oil."

When a color appears stiff and unmanageable add two drops of oil to a bit of color about the size of a small pea, and rub smooth with the palette knife. *If too much oil* has been used,

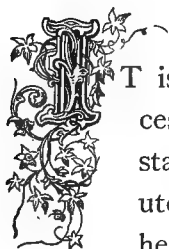
the color will refuse to dry well on the china, will look oily, and be apt to spread into the other colors, and when fired the color will blister and "craze," that is, it will crack and show long lines of the white china through the painting.

If too little oil is used, although no bad results need be feared from the firing, the whole decoration will have a rough, stiff effect, and if considerable oil seems necessary to remedy this rough appearance of the color, a *thin wash* of the color, prepared with much oil, is less liable to craze and blister in the firing than the same color laid thickly.

Oil of turpentine in a color will dry rapidly, enabling the artist to work quickly.

Oil of lavender dries slowly, and is preferable for work that is required to dry slowly, always being used for grounds and large tinted surfaces. Oil of copaiva and oil of cloves may also be sometimes used for the same purpose. All these spirits and oils should be kept tightly corked.

MANAGEMENT OF UTENSILS.



It is a very necessary element of success, and also of economy, to understand the proper management of utensils. Some general directions are here given which are of importance to the amateur.

Brushes.—To select a good brush you must dip it first in water, flit lightly to rid it of surplus drops, and then try the hairs upon your nail. If the hairs easily spread apart the brush is worthless. The hairs of a good brush will remain in a fine, smooth point. About nine-tenths of the brushes offered for sale are good for nothing. If you will sharpen the ends of your brush handles you will find them convenient for removing specks of lint and dust from your work. It is also a convenience to have the handles as nearly the same length as possible. It is well to have three or four of each

kind of brush. If you have but one of each, the greater part of the painting hour will be spent in cleaning brushes.

Before they are laid away, all brushes, large and small, must be well cleaned in alcohol. Turpentine left in the brush spoils the hairs, and there is always more or less color at the base of the hairs that only the alcohol can remove. Wash them often also in warm soap and water, as this keeps the hairs very light and fresh. Dry the brushes by shaking and lightly striking against the hand. The small brushes should always be carefully brought to a fine point. Brushes require to be "educated" in this way. Brushes that have become stiff through carelessness can be cleaned by leaving overnight in a strong warm suds of soft soap and water.

Much of the success in china painting depends upon the brushes being kept in proper condition. They should always be kept in a covered box, as lint or dust in the hairs cause much injury to the work.

Never lay the brushes in use upon the table, but rest them in the notched stick prepared for that purpose.

In laying your brushes away be careful that none of the hairs are turned the wrong way, as their shape and points are in this way much injured.

Loose hairs should be kept from the brushes; a hair in the color will destroy the effect of a decoration by drawing the color in wrinkles about it.

Palette Knives.—The steel palette knife can be used in mixing the “iron colors.” The horn or ivory knife must be reserved for the blues, whites, and all colors from gold—as carmines, purples, and violets of gold. Yellows also are sometimes injured by a steel knife.

Ground Glass.—This glass can be procured from any glazier, and must be used for all experiments in the trying and mixing of the different colors. The colors to be prepared with oil or turpentine must be always first squeezed upon the glass.

China Palette.—This must be used only for holding the colors already mixed and prepared for use; and these colors should be placed at sufficient distances apart, so that one color will not encroach upon another. An iron color, spreading into a delicate carmine, would completely ruin the latter; while a blue and yellow spreading together would immediately become green.

Colors.—The colors should be the La Croix tube-colors unmixed with those of other manufacture. The tubes should always, when not in use, be kept in the color-box; any box with a tightly-fitting cover will answer the purpose, and care should be taken that the top of each tube is screwed tightly down before putting away. A great deal of injury is caused by dust and lint settling in the colors.

The position of the tubes in the box should be constantly changed to prevent the color from separating from the medium with which it is mixed. The tube-colors should be also kept away from the heat.

Enough color should be squeezed from the tube to answer for one sitting only. A piece of color the size of a small pea is usually enough for ordinary use. The fat oil in an exposed color soon becomes sticky, and, collecting dust, is unfit for use. Always squeeze the colors by pressing the bottom of the tube, as there is less waste. If it is necessary that you should leave your work before it is finished, cover your palette and colors with an inverted plate and place the unfinished painting in a position where dust or dampness can not touch it.

Some of the colors—whites, blues, and carmines—will always require a drop or two of the fat oil before they will flow smoothly and freely from the brush. Always squeeze the color first upon the glass slab. Have ready a few drops of the oil in one of the small drop-bottles, and from this measure two drops upon the color. Two drops are usually enough for a piece of color as large as a small pea, unless a thin wash is required. If the color is an “iron color,” rub the oil well into it with the steel palette

knife ; if a blue, white, or color from gold, or mixing yellow, use the horn knife. When the color is sufficiently smooth or rendered as thin with turpentine as required, lift it on the point of the knife and deposit it in its place on the palette. China palettes are expensive, varying from seventy-five cents to two dollars. A clean china plate or saucer kept for the purpose will answer as well.

Always dip the knife in the cup of turpentine and wipe on the cloth before touching another color. If you have no horn knife, mix the gold colors with the brush. Remember that the gold colors are the carmines, purples, and violets of gold.

If the color clogs the brush and is stiff and lumpy, it requires thinning with turpentine. If, on the other hand, the brush slips and the color spreads irregularly, too much turpentine has been used, and the remedy is the addition of more color and a little fat oil.

Those washes prepared with much oil must always be applied very thinly to the china, as

they are then less liable to "craze" in the firing.

A deep shade of color is never made by using the full depth of color in the first wash, but by repeated washes, each being perfectly dry before another is laid on; if the first wash is not dry, and free from moisture, the tint will appear muddy and cloudy.

All mistakes can be easily remedied before firing, by the aid of turpentine and alcohol, but after that process the matter is not so simple. Sometimes the work can be retouched, and exposed to a second firing, but this requires a practiced hand, and it is much better to be quite sure your work is right before being sent to the kiln. Some accidents have occurred in the firing, in spite of the decorator's care, but, as a rule, failures can be traced back to some mistake or carelessness in the manipulation of the colors. Some artists depend upon two or more firings for completing their work, but the directions for the designs in this work refer to but one firing, unless the contrary is specially indicated. In

case an alteration of part of the work after firing is very desirable, hydrofluoric acid, carefully applied, will remove the color. The best way to apply this is to draw a cloth over a pointed stick of wood, and lightly dip this point, covered with the cloth, into the acid, then apply to the spot of color you wish removed. Great care must be used in handling this acid, as it is very powerful.

Spirits of turpentine and alcohol applied in this way will remove small spots of color before the firing, but they are perfectly useless when the firing operation has been performed, because the colors have then become vitrified, and nothing but a powerful corrosive acid will have any effect on the surface of the decorated china.

In the application of paints and colors, the amateur requires a large supply of *patience*. Each coat of color must be allowed time to get not only dry, but hard ; it is therefore better to wait a day longer than to proceed with the work an hour too soon. This is one of the few cases in which delays are *not* dangerous, but all sure gain.

SELECTION OF CHINA.



HEN the materials have been procured, the next consideration is the selection of the china required for decoration.

The china of French manufacture is the best, as the articles possess superior translucency and elegance of form.

Stone china and all other white ware can be decorated and fired, but for elaborate work the delicate translucent china is far superior.

New china is always preferable to old, unless the article has been but little used.

Butter dishes or plates that have held oil or grease of any kind turn dark in the firing.

Flowers and fruit, in rich, bright colors, have a beautiful effect upon the creamy tinted Minton ware, while the glaring whiteness of the

other wares is somewhat objectionable from an artistic point of view.

Plaques, plates, and tiles are considered the best for a beginner's first attempts. They are much more easily handled than cups, vases, pitchers, or other articles with rounded surfaces.

In selecting a plaque be sure that no glass has been used in its composition.

Plaques beautifully decorated by those ignorant of the injury caused by the presence of glass, have been broken in pieces during the firing, or returned unfired, with the warning that such would be the result if the plaque were exposed to the intense heat of the kiln.

Decorated tiles make very pretty and useful rests for tea and coffee pots. In painting a pair of these rests be careful to use colors on both that require the same intensity of heat in firing, as tiles shrink more or less in firing according to the amount of heat required for the colors. For instance, if one is painted in light blues, carmine, and light yellow, and the other with darker colors, as the reds, greens, and dark

shades in yellows, the latter will come out considerably smaller than the former, as more intense heat was necessary for the dark or "hard" colors.

Black tiles are very handsome, with rich flowers or fruits; but it is well for the beginner to resist the temptation of trying the decoration of the handsome black tiles, as they have an unpleasant habit of absorbing the color and leaving merely the shadow of fruit or flower.

Twisted wire stands can be obtained for these tiles, or the tile-rests can be placed flat upon the table. If wire stands are used, they should not be fitted to the tiles until after the firing.

Plates with scalloped edges decorated with landscapes in monochrome (see "Monochromes"), or with outline figures in Chinese or Japanese styles, also make very pretty ornaments for the drawing-room wall, where they can be easily suspended by the regular wires made for that purpose.

For the benefit of those unable to obtain these wires, I will here give directions for mak-

ing a "home-made" plate suspender, copied from one of our Art Journals:

"Take three dress-hooks, the largest you can find, and put them at equal distances round the edge of the plate, the holes where the hooks are sewn being of course at the back. Pass strong cord or the flexible wire used for picture hanging through the two holes of each hook (if cord is used, crossing over several times from one side to the other), fasten off very securely, leaving a loop by which it can be suspended."

In selecting china, examine it very closely, to ascertain that the enamel is pure and free from black specks, as these show plainly after firing unless the spot is well covered with color.

The edges of articles that are to be ornamented with gold bands must be smooth and perfect in shape. A breach in the enamel spoils the effect of the gilding, and an imperfect outline causes the gold band to appear crooked and badly executed.

China that is soiled can be cleaned before decorating by washing in warm soda and water.

PREPARATION FOR WORK.



SHORT time devoted to the arrangements and preparation for work is never time lost. The following hints are important :

Table.—The table should be of a convenient size for holding the work. A table, three feet wide and four feet long, makes a comfortable, roomy painting table.

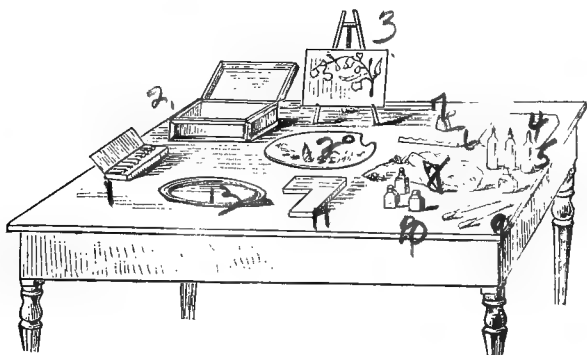
Other work, such as sewing, etc., must not be laid upon the same table, as lint, dust, and specks of dirt frequently cause great injury to the work. Ladies sometimes make for themselves long calico aprons with sleeves that not only protect the paint from lint rising from their woolen dresses, but prevent the sleeves from being soiled by accidental contact with the colors, and promote cleanliness generally.

Light.—It is desirable to sit in such a position that the light comes from the left, otherwise the right hand casts a shadow upon the work; sitting with the face to the light will tire the eyes in a short time.

Chair.—The chair should be high and of such a form that the operator's back is supported. The position should in every way be as easy as possible, for the work is fatiguing, and the steadiness of hand and nerve requisite to a successful painting is impossible in an awkward or cramped position.

Arrangement.—On the table will be usually kept the box containing the colors and the box of small utensils; these, with other materials not in immediate use, should be placed at the left of the decorator. On the right, near the end of the table, place the bottles of oils and spirits, the glass slab, and the two palette knives; nearer the center of the table, still on the right, place the notched stick for holding the brushes, the cup of turpentine, a linen rag, and the palette with the colors prepared for

use ; and, nearer still, but in a safe position, the three drop-bottles containing respectively a few drops of spirits of turpentine, oil of turpentine,

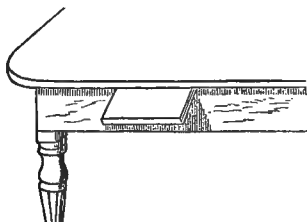


THE PAINTING TABLE.

and oil of lavender. Directly at the right hand must be placed the wooden rest for the hand ; in front, the article to be decorated ; and back of this, on an easel, the object to be copied.

A very useful appendage to the table consists of a slab about eight inches long and ten inches wide, fastened under the front edge of the table on hinges, so as to drop down out of the way when not in use. This will be found

of service in cases where thin washes have to be applied to a hollow surface. The article is held with the left hand tilted against the edge of the table while being operated upon by the right hand holding the brush. The wash can thus be laid on evenly, without any tendency to flow



toward the center of the hollow, which would be the case if the article were laying in a horizontal position. The slab will also come into casual use in many ways which will occur to the painter in the course of his operations.

All the materials being in readiness, the following general directions will give a clear idea of the best manner to commence operations :

First—Take the bottle of alcohol and from it partly fill the cup and one of the small drop-

bottles ; the large bottle is then put aside, as it will be no more needed during this sitting. Take from the box two pencils (Faber's 6H and 2B), with fine smooth points, a piece of tracing paper large enough to cover the design, and cut eight strips of gummed paper each half an inch wide and an inch in length.

From the brushes select one fine-pointed outlining brush, two small and two medium sized brushes.

From each of the tubes containing the colors necessary for the first painting of the design, squeeze out upon the glass slab a piece of color as large as a good-sized pea, more or less of each color as may be deemed necessary.

Upon all of these colors measure two or three drops of turpentine from the drop-bottle, and with the palette knife rub down each until the color and spirits are well mixed. Dip the knife in the cup of turpentine and wipe on the rag before touching each fresh color, and be careful that the spots of color have been placed far apart. As each color is rubbed smooth, lift

it upon the point of the knife and deposit it upon the china palette. This should now be conveniently placed at your right hand, with the brushes near it.

An artist, or one experienced in drawing, will at once sketch in the figure upon the china with sepia. The safest and best way for amateurs is to trace the design.

One method of tracing, and in some cases the best, is as follows :

Take a piece of tracing paper large enough to cover the design, and hold it firmly and without wrinkling over the object to be copied. With a pencil (Faber's 6H) cover every line of the design ; then place a piece of the red transfer paper on the china over the spot chosen for the decoration. Fasten this paper securely to the china by gumming the edges or with wafers. Now, over this place the paper on which is the tracing, with the tracing toward you ; secure this also with wafers. Then with the hard pencil go over the tracing ; this time pressing as firmly as possible without tearing the paper. The im-

pression of the design is thus made to show plainly upon the china from the red coloring in the transfer paper.

A still more simple way (but this destroys the original) is, after the transfer paper is on the china, place directly over it without tracing the paper on which is the picture you wish to copy, and then go over the lines, as directed before, with the pencil as firmly as possible. The lines by this way are more faithfully reproduced upon the china, but the picture is of course ruined by the marking, while by the first method the original can be used any number of times and still be uninjured.

Another manner, when transfer paper is not to be obtained, is to trace the outlines, as directed, upon the tracing paper with a hard, sharp-pointed pencil; then turn the paper over and carefully go over the wrong side of the lines showing through the paper with a *very soft* pencil (Faber's No. 1).

This makes a very fair substitute for the regularly prepared tracing paper.

Select the exact spot on the china for the design, and place upon it, carefully and without rubbing, the tracing paper, with the soft pencil marks down upon the china. Wet the wafers between your lips, and with them fasten the tracing upon the china. After these have dried, then with the sharp-pointed *hard* pencil go again very carefully over every line of the tracing. The soft pencil marks will in this way be impressed upon the china. Be careful that every line is pencilled before you disturb the paper, which must be lifted carefully without rubbing the design showing now upon the china. It will make no difference if the wafers remain fast, the tracing paper can be torn away from them.

In both cases where transfer paper or tracing paper alone has been used, it is necessary at once to secure this easily-erased outline. For this, color is sometimes used when desirable. At other times india-ink is preferable, as the ink lines disappear in firing.

From the box take the stick of india-ink and

the small paint dish, and prepare a little liquid india-ink by rubbing the end of the stick in a few drops of water ; when you have enough of the ink, drop into it two drops of the extract of gall, which will cause the ink to "take hold" of the china. Take the small, fine-pointed outlining brush, dip it in this liquid ink (a steel pen can also be used for this, filling it from the brush), and with it cover the lines *inside* the outline where color is to be placed, as well as the general outline. This india-ink shows through the color plainly.

After this is dry, take the fine-pointed brush, dip it in the turpentine, and press it against the rim of the cup, that too much moisture may not remain in it ; turn the point of the brush about in the edge of the vitrifiable sepia upon the palette until the hairs are filled with color. Now try the brush upon your spare piece of china, turning it over and over, and making little "dabs" until the hairs are smooth, and you are able to make a slender line of color as fine as a stroke of a pen. You may now with this go

over every pencil-mark or tracing upon the china. As soon as the color ceases to flow freely from the brush (you must not press the hairs, which must be kept at a sharp point to make the desired fine line), it must again be dipped in the turpentine and color, and tried as before until the color flows freely. When this sepia outline is completed, it must be allowed to dry.

In the plate representing the flower-piece of daisies the background is made with light gray, used very lightly, and a touch of grass green. To match the exact tint of the background in the original, it will be perhaps necessary to experiment a little on a spare piece of china or earthenware. The dabber must be freely used, according to directions on page 65. The flowers having been previously drawn in india-ink, according to directions on page 44, will show through the color of the background, of which that part covering the india-ink drawing must be carefully wiped or scraped away. When this is done, the colors for the leaves and petals can

be painted directly on the white surface of the china. Paint in the leaves and buds and flower stems, etc., with grass-green, shaded with brown green, except those faintly shadowed on the background, which must be painted with light gray, with a touch of green, used a little stronger than the tint used in the background. The blue flowers are painted with ultramarine blue, used rather lightly, with a stronger tint mixed with a touch of violet of gold (*violet d'or foncé*). The center of the blue flowers can be made of sepia mixed with carmine No. 3; the same color will answer for the closed petals of the topmost bud.

The daisies are painted with yellow centers of pure orange yellow for the light, and yellow mixed with sepia for the shades. The white petals are formed by loading permanent white upon them. The color should be lifted with the brush and laid on without spreading. The shadows upon the white petals can be imitated with light gray No. 1, used more lightly than in the background. The brown stems are made with sepia, to which is added a little carmine.



DIRECTIONS FOR THE USE OF COLORS.



WHITES are used generally in small touches, as a spot for the light in an eye, to heighten the effect of jewels, embroidery, etc. It is laid on thickly by lifting upon the brush. Chinese white will mix well with all other colors.

Permanent white is sometimes used in connection with other color "in relief."

The white is laid on first in a thick, opaque spot, and, when perfectly dry (a slight firing is safest for this), the color is put over it in a thin wash.

The high lights in white flowers and drapery are not made with washes of color, but by allowing the white china to remain uncolored,

and the shadows are made with the different grays, light or dark, as may be required.

Blues.—These require to be carefully handled. A delicate pure blue is very easily injured by contact with yellows, iron colors, purples, or the steel knife. Blues are always laid in thin washes, and the shade deepened by successive washes. They usually require the addition of more fat oil than the other colors, to render them sufficiently pliable.

Shadows in blue drapery and flowers are made with a darker shade of blue, or with gray. *Platinum gray* should be used here, as it contains no iron.

Turquoise blue can be used "in relief" in the same manner as permanent white, and remain opaque above the surface of the china after firing. For this reason it is used with pretty effect for spots on the wings of butterflies, jewels, small blue star-flowers, and for decoration where a fixed pattern for borders, etc., is designed.

Blue combined with yellow (which should be

jonquil-yellow or yellow for mixing) makes bright shades of green. A blue sky is improved and made more true to Nature's own blue by the addition of a little light green mixed with the blue. Blue morning-glories require a shading of light carmine. In blue flowers with a yellow center scrape all color carefully away, that the yellow can be placed directly on the china.

A blue outline for flowers of lilac color (lilac for grounds, or sky blue with carmine No. 1, produce lilac) will very much intensify the lilac tint—an improvement when the flowers are on the white ground of the china. Light sky blue is liable to scale unless it is applied thinly.

Blue contrasts well with pale orange; dark blue with deep orange.

Browns.—Browns can be used as shadings, and contrast well with most colors. In shading colors containing no iron, the brown must not be laid over the color, but directly on the china, the other color having been scraped away from this spot, or the china left unpainted.

Dark brown is used for trunks and branches of trees and for touches of brown in leaves. Brown with a touch of carmine is used for autumn leaves.

Yellow brown is used for earth, shaded with black.

Brown No. 108 is used for brown hair, varieties of tint being made by touches of blue and shaded with black.

Brown for eyes is also shaded with black ; a little yellow mixed with the brown lightens the tint for the markings next the pupil.

Carmines.—These require great care in handling. Too much oil causes them to shrivel in the firing, and they should always be applied in thin washes, as otherwise they are apt to turn yellow in the firing.

Carmine is sometimes called the “test” color, as it is used for testing the temperature of the kiln. A piece of china colored with carmine is placed so that it can be drawn from the kiln without disturbing the articles firing. In too low a temperature the carmine fires a dirty yel-

low.; a too intense heat turns it purplish. When it comes out a clear rose tint, it is safe to consider that the articles fired with it are sufficiently "baked," unless some of the "hard colors" requiring the most intense heat are used in the decorations.

Carmine mixed with purple is used for making grayish shadows in foliage.

Carmine is used in painting pink flowers on china, the shadows done with light gray, or a gray made with carmine and apple-green. The strong shadows in carmine are made with purple. A touch of carmine is sometimes used to tone down a green that is too staring. When a "touch" is directed, it is meant that a little carmine is laid in touches upon the color after it is dry, and not *mixed* with it.

Greens.—Carmines and other colors containing no iron can be safely mixed with greens, for they contain little or no iron. The deepest and darkest shadows in green foliage are made with purple and carmine.

For the leaves necessary in ordinary flower-

painting, light and dark greens are usually sufficient.

Brown-green is made for the shading of green leaves; and red touches in green that are placed over the color are safest in brown violet, and the intense red sometimes seen at the tips of leaves must be placed upon the clean china.

In leaves and foliage always contrast cold lights and warm shadows; warm shadows are made with the greens combined with reds, ochre, and yellow; cold colors are where black and blue are used.

Green is intensified by being in near contrast with red.

Grass-green is the local tint of foliage; the lighter shades are made by mixing blue, jonquil or mixing yellow, using more yellow as lighter tints are needed. For the first shadows use brown-green, adding more color as the shadows grow darker; a dark blue added makes a very dark shadow, and black-green is used for a mass of foliage in a dense shadow.

For water use apple-green mixed with sky-blue ; for dark reflections and shadows use black-green ; lights on the water are made with grass-green ; foam at the edge of waves or ripples as they break against rocks is made with little touches of Chinese white used thick.

Copper green sometimes turns dark ; chrome green is very permanent.

Grays.—Grays are often made by combining other colors—reds with greens, carmine and green, blue, brown and pink. Experience shows how to obtain the desired shade.

Gray is used for outlining flowers, branches, and figures of all kinds. The gray contrasts well with any color, and causes flowers and figures to “stand out” from the background. Gray is used for the shadows in white drapery and flowers ; black, to which a little dark gray is added, makes a deep shadow.

Reds.—These in the vitrifiable colors are red, flesh red or carnation, coral, and violets of iron.

Coral can only be used slightly and in grounds, as it sometimes changes to yellow. It can be

used with beautiful effect in a ground which requires to be fired at a low temperature.

(For deep crimson and scarlet flowers see purples and vitrifiable colors.)

Carnation pinks are carnation shaded with violet of iron.

Roses are made with rose pompadour (a grounding color which is used in this case) for wild rose, and a deeper shade made by repeated washes for common rose.

For the red in Chinese and Japanese figures and pictures use capucine red.

The combinations of these reds are explained in the "Table of Colors," (page 15).

For the red in flesh use the flesh tints, with a thin wash for a pale color. Iron yellow must not be added to make this pale tint, for it devours the red in firing; two or three washes of flesh red No. 2 are used for ruddy tints; the lips and marking of nostrils are violet of iron. A fainter red is flesh red No. 1, retouched with No. 2.

When the face is high colored, yellow-brown

can be used with the reds for the local tint, and the cheeks touched with carmine.

Purples.—Purples in vitrifiable colors are equivalent to crimson lake in oils.

A rich crimson flower must be painted with crimson purple shaded with the same. The combinations of this color are described in the "Table of Colors." The same care is necessary in the use of purples as with carmines.

Yellows.—Ivory yellow will sometimes completely destroy a color with which it is mixed.

Yellow used for wheat (permanent yellow) can be made to stand out by using the color thick, breathing upon it to soften it.

If red markings are required in yellow flowers the china must be "reserved"—that is, left bare—for the red.

Yellow flowers are outlined in yellow-brown, or with a darker shade of yellow. Shadows are made by combining deep yellow and ochre, or a gray made of deeper silver yellow with a touch of purple.

Mixing yellow combined with a little flesh red makes a flesh tint.

Blacks.—Black is sometimes used in lines and in regular patterns for borders.

It can also be used in silhouette figures on a white or cream-colored ground.

Iridium black should be used in connection with iron colors.

The blacks are few, and more can be obtained by combining dark reds and blues.

Black should always be mixed with a little blue when used in thin washes, as it is apt to rub off if used alone.

The black marking on the wings of blue butterflies should always be iridium black.

All colors will lose some of their strength when fired; the tints must, therefore, be used darker than they are to appear finally. If the tint after firing is much too faint, another wash can be added and the article refired.

A patch of color applied moderately thick may be made to distribute itself more evenly by breathing upon it.

A little color on the palette for delicate fine work can be better prepared by breathing upon it to soften and render it pliable.

The work must not be hurried. A fine decoration may be much injured by a hurried attempt to add a small finishing touch with the brush full of turpentine, and the point only charged with color. The turpentine will not only prevent the color from flowing evenly, but will spread into colors that have been previously laid and dried, thus causing them again to spread upon still others.

We must repeat the fact, which artists well know, and amateurs must learn, that patience is one of the indispensable elements of success in china decoration. One color may be laid on another before the first is dry and hard, and patching or retouching may not be apparent when done, but they may cause disappointment after firing.

SUBJECTS SUGGESTED.



SUBJECT selected for a decoration should be carefully studied. Of figures, those only should be attempted that are within the scope of the artist's powers.

Flowers, butterflies, etc., are much easier for the amateur's first attempts. The outlines of flowers must be correctly and precisely drawn, but the painting of most flowers, if the natural colors are selected, is not beyond the ability of amateurs, while the correct posing of a figure and graceful shading of drapery require artistic knowledge and perception.

A very easy subject for beginners is a background in gray, with Chinese scenes in blue, sketched with a pen.

With a metal pen (one not of steel is the best), the color is scratched away from the out-

lines which have been put in india-ink before the ground was laid.

Brown outline figures on cream-tinted ware are also effective, done in the same way with a pen. Fans, butterflies, and objects copied from Japanese fans are pretty for this style.

A lavender-tinted cup and saucer, with flock of blackbirds in silhouette, is easily executed by cutting out paper birds from a pattern correctly drawn and pasting the birds on the china. The ground is then put on over all, and, if gum water is used, the paper will not come off unless very much pressed. After the ground is perfectly dry the paper is scraped off and the black coloring applied.

Common brown glazed earthenware jugs can be made pretty as ornaments by painting clusters of cat-tails upon them in darker shades of brown with broad green leaves.

Chinese white applied as a background for plaques gives a very soft effect to flowers painted upon it, the background absorbing the hard lines and producing a soft effect.

This design for a cup and saucer is very graceful either in monochrome or in its proper colors.



This pattern for ornamenting butter-plates



is also easy and, if neatly done, very effective.

TUBE-COLORS FOR GROUNDS.



THE following La Croix colors will not bear mixing :

Celestial blue (*Bleu céleste*).
Indian blue (*Bleu indien*).
Lavender blue (*Bleu lavande*).
Marine blue (*Bleu marin*).
Reddish brown (*Brun mordoré*).
Chamois brown (*Chamois*).
Carmelite (*Carmelite*).
Celadon (*Celadon*).
Light coffee (*Café au lait*).
Chromium water-green (*Vert d'eau au chrome*).
Copper water-green (*Vert d'eau cuivre*).
Grounding green (*Vert pour fonds*).
Steel gray (*Gris d'acier*).
Turtle dove gray (*Gris tourterelle*).
Isabella (*Isabelle*).
Fusible lilac (*Lilac fusible*).
Mais (*Mais*).
Mauve (*Mauve*).
Coral red (*Corail*).
Rose pompadour (*Rose pompadour*).
Salmon (*Saumon*).
Turquoise blue (*Turquois bleu*).
Turquoise green (*Turquois vert*).
Chinese yellow (*Faune Chinois*).

These colors are ready prepared, especially for grounds; they are fired at a more intense heat than the colors used in the ordinary decoration of china.

They will not bear mixing, except in the case of rose pompadour, which, used lightly in the painting of wild roses, etc., seems to be an exception to this rule.

It is necessary, therefore, that the article decorated with fruit or flowers in the ordinary colors, upon a background tinted with grounding colors, should be exposed to two firings. The ground alone fired first, and then the center figure painted, and fired at a lower temperature.

The grounding colors are somewhat richer in tint than the others, but when the two firings are inconvenient for the decorator, the ordinary colors can be prepared and used according to the directions that will be given for "Grounds," and by combining two or more of these colors beautiful tints can be obtained.

More or less color must of course be squeezed

from the tube, according to the size of the article to be tinted.

For a plate of ordinary size, squeeze into the center of the glass slab, which must be clean, a piece of color large enough to cover a cent. Add to this three drops of oil of turpentine and five drops of oil of lavender, and mix well together with the palette knife. (In the case of blue, red, and carmine, more oil is required.) Then add spirits of turpentine until the color is thin enough to flow smoothly and freely. Have ready two or three dabbers made of soft, clean chamois-skin, tied over flattened balls of cotton. For "dabbing" an ordinary sized plate or cup and saucer the flattened side of the dabber should be about the size of a silver half dollar. These dabbers should always be kept clean and free from all color, dust or dampness. The chamois skin can be washed in warm soap and water ; before it is quite dry it should be pulled and stretched until it is soft and flexible.

After the color and dabbers are prepared, the china must be well wiped, as moisture or

dust will injure the tint. If only a tinted surface is desired, with no further decoration than perhaps a gilt band, to be supplied by the operator where the article is fired, you may proceed at once to lay on the color.

Take a clean flat brush, of a size convenient to the shape of the china, and dip it in the cup of turpentine, pressing it against the sides of the cup, that too much liquid may not be taken ; then thoroughly charge the brush with your prepared color.

Try it first upon a separate piece of china, smooth and straighten the hairs, and when the color flows evenly and well begin the work of tinting. If the article is a plate or saucer, the brush strokes should be given circularly, going round the plate with short, regular strokes, each circle bringing you nearer the center of the plate. If tinting a cup, it must be held bottom upward, and the brush strokes be given straight from the base of the cup downward.

As soon as the color ceases to flow freely the brush should be charged with more color, each

time trying the freshly charged brush on some other china before proceeding with your tinting. Work as quickly as you can, never touching the same place twice. Pay no attention to the irregularity of your tint, the dabber will remedy all that. This first wash of color should be made quite thin. Darker shades are made by repeated washes of color laid thinly, taking care that each coat is perfectly dry before another is applied, and each worked over with the dabber as in the following directions :

When the surface of the china is entirely covered with the first wash of color, the article should be wiped where the color has spread over the edges. Lightly try the tinted surface with the tip of your finger, and when it is almost dry, with only a little "sticky" feel, take the dabber and with it strike quick, light little taps over your work, beginning where the first color was laid, and striking oftenest where the color appears thickest, thus making an even, flat tint. Never rest the whole weight of the dabber upon the work, but the stroke can grow heavier

as the color dries. As soon as you discover the dabber to be sticky or soiled with color, a fresh one should be taken. The color, if prepared rightly, will not adhere easily to the dabber. The exact quantity of oil to be used in the color can only be determined by repeated experiments. If the color dries quickly more oil of lavender is required, for it is necessary in grounds that the first color laid should not be perfectly dry before the entire surface is ready for the dabber, as, if it is, the dabber has no effect in evening and flattening the tint.

If the color looks oily and refuses to dry, too much oil has been used. If the color comes off on the dabber in spite of apparent dryness, more oil of turpentine must be added.

When a center figure, flowers, or fruit are to be placed upon the tinted background, the simplest and best method is to prepare the china and proceed as in the directions given under the head of "Tracing."

When the tracing of the design has been completed, the pencil-marks, which can be easily

erased, must be covered with india-ink, which has the advantage of showing plainly through an ordinary wash of color. The stick of india-ink is dipped in water and rubbed upon a small paint dish. When enough of the liquid ink is thus formed in the dish, add to it a drop or two of extract of gall. Then with a fine-pointed brush or steel pen filled with this ink go over all the outline pencilled upon the china. If a pen is used, it can be filled with the ink by charging the brush and pressing the ink from it on the *outside* as well as the inside of the pen.

When the india-ink outline is perfectly dry, the grounding color can be put over all as directed before, the outline beneath showing plainly through the color. When the background is completed, the color inside the india-ink outline must be scraped away with a pen-knife, and that the china inside this space may be entirely free from color, fasten a cloth over the blunt point of one of the soft-wood sticks, and dip the point covered with the cloth in turpentine, and with it rub the space within the

outline until it is perfectly clean. In doing this be very careful that the turpentine does not touch the color *outside* the outline for your design.

Any little line of india-ink showing through the color will do no harm, as it will disappear in the firing; but if the background is encroached upon by either knife or turpentine, the effect of the decoration will be much injured.

If the background is of the special grounding colors, nothing more can be done until the china is fired. The center decoration can then be put in for the second firing. If, however, the ordinary colors have been used in the ground, the entire decoration can be completed before sending the article to the kiln.

For beginners silhouette figures in monochrome or one color are the easiest.

It is well to understand that, to make a figure or landscape "stand out" well, it must be in strong contrast with the background; thus, if the design is dark, the background must be light; or if the background is dark, a design must be chosen requiring light colors.

Red and brown are very manageable for putting in grounds.

A delicate gray ground gives a fine effect to gilding or rich fruit or flowers in the center. A pink background for miniature landscapes in the shape of medallions, placed at equal distances round the rim of plate or saucer, is very lovely, but must be handled with care, as the carmine producing the pink tint is an uncertain color.

Where a heavy dark ground is desired, the method is different and much more difficult. For this the La Croix color must be in powder (No. 3 finely ground), a dabber made of raw silk or linen instead of chamois skin, and a large fitch blender.

Upon the glass slab measure a few drops of oil of turpentine and spirits of turpentine, rub with the palette knife until the oil and spirit are well mixed and smooth; fill a large flat brush with this and pass it quickly over the surface of the china, being careful that every spot is covered. Then with the dabber go all over this

oily surface—very lightly indeed, and trying to distribute the oil as evenly as possible. Then take the blender, fill it with as much of the powdered color as it will hold, and lightly dust it over the prepared surface. If more powder falls in spots than is desired, it can be lightly brushed off. This method is difficult, and requires experience. The color becomes transparent during the firing, and all specks or irregularities in distributing color are made plainly visible.

The greatest care is therefore necessary to produce a clean, uniform ground color; nothing mars the general effect of decoration more than an uneven, muddy, or speckled background. Any defect in a design may be corrected by retouching, but this is almost impossible in the case of ground coloring.

BORDERS.



WE should advise, as a rule, that gilded bands, ornamented borders, etc., be left in the hands of the professional gilder.

A few simple directions will, however, enable the amateur to *attempt* this work, success in the attempt depending upon the perseverance and dexterity of the operator.

In decorating establishments the workmen are only given the colors when they can work successfully in reds. Borders in gold and colors are given them when success has followed all other attempts.

For plain bands, narrow or wide, in gold or colors, the "turning wheel" described on page 87 is used. The brush must be narrow or wide to suit the width of the band, and must be entirely filled with color prepared with oils and turpen-

tine to flow freely and evenly. If not successful with the wheel, a round piece of card-board the size required can be cut evenly with the help of a compass, and fastened with gum to the center of the plate or saucer. This card-board center-piece will be found useful for a variety of purposes.

Where two colors, or gold and color, are required in a border, the safer way is to expose the piece to two firings—the plain band of color fired first and the pattern painted over it. In all cases, however, the “hard” color, or that requiring great heat, is fired first.

Gold requires “soft” colors to be fired with it.

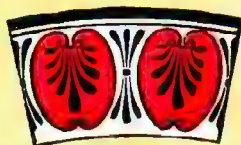
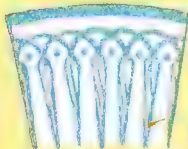
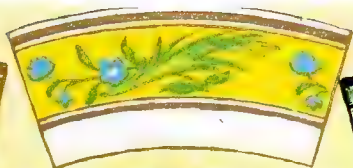
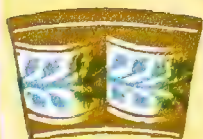
After the pattern is selected for a border, a plate, or other round article, the question at once arises as to ways and means of transferring this pattern to the rim of the china. The artistic method, of course, is to “lightly sketch it in.” For beginners, a simple way is the following :

Turn the article face downward upon a piece of smooth paper—fine wrapping-paper will an-

swer—and with pencil carefully draw a circle around the china; next measure the width of your border pattern, and make a pencil-mark on the paper circle accordingly. Now take a compass, fix the needle exactly in the middle of the circle, with the pencil on the mark you have made, and carefully describe another circle. You have now a border that should fit your china. Cut this paper rim out and try it. It sometimes happens that the china is of such a shape that a narrower border is necessary. When you have succeeded in fitting the paper border, double it into quarters or eighths of a large size. Now trace upon tracing paper, as in Directions for Tracing, enough from your pattern to cover the quarter or eighth of your folded paper. Place the traced pattern over it, and fasten all securely to a cushion or several thicknesses of blotting-paper. Among your “implements” you should have a needle set in a wooden handle. With this needle prick holes quite closely along the outlined pattern, pushing the needle each time quite through the folds of paper into the cush-

ion. A sewing-machine with a fine needle is quite useful in this work if proper care is taken in holding the folds firmly. When all is done, a perfect border in small holes will be found upon the unfolded paper. Fasten this border upon the china with bits of wax or gummed paper. Before this is done, however, the china must have been prepared, as described before, for receiving tracing or pencil marks (see page 20). Make a "pounce" or wad of soft cotton, cover it with powdered charcoal or any vegetable color (light, if your ground is dark), and dust carefully all the holes in the paper border. Carefully remove the paper, and you have a perfect outline in fine points of color. This outline must at once be strengthened in india-ink or water-color, as it may become blurred by handling.

If the pattern is a simple one, like the first and third in the last line in our page of borders (the reader will understand that these two are straight borders, suitable for panels), the india-ink outline can be covered with the grounding



color, applied by dusting the powdered color as already directed. Any powder falling beyond the outlined border can be easily wiped off. As the decorator of course understands that in this case oil should only have been placed upon that part of the china which is to be covered with the border; or if carmine, turquoise blue, or any color is used that can be applied in a thin wash, the ground can be laid on in tube-color with the brush. In either case the ground must be allowed to dry thoroughly, then the color can be carefully scraped from the outline, leaving the white china to receive the color intended for the pattern. If the bands are sent first to be fired, a "hard" color must be chosen, or the second firing might ruin it. If a "soft" color is chosen, the pattern must be the same.

The patterns given that are painted on the bare china can all be completed at one firing.

Patterns 1 and 2 on the first line look better if they can be "sketched" in, but they can easily be traced.

The yellow-brown band (*brun jaune*), the mid-

dle pattern of the first line, has very much the same effect as gold, and should be fired before the pattern is put on.

Numbers 1, 2, and 3 on the second line need but one firing.

Use turquoise blue and ivory black in the first, and in all cases do the lines and bands first.

Figure 1 on the third line can be made very effective by putting on the pattern in gold, and after it is fired (and burnished) at the firing establishment, cover all with a thin wash of carmine.

Lovely work of this kind can be done by consulting Owen Jones' "Grammar of Ornament," and taking tracings from some of the patterns. Light shades of blue and green are pretty over the gold. A very light wash of light carmine is pink after firing.

The pattern in blue in center of page is pretty in raised work; use white enamel for this, except for the dots: these can be made to stand out with blue alone; and after firing cover with a wash of light blue, leaving the white as indi-

cated for lights in the pattern. By consulting article on colors the reader will find directions for using enamel, and in putting it on the china as thickly as the pattern in border requires, the warm breath should be used constantly for keeping the color in place on the figures.

Gold can also be placed over this raised work. Always apply the gold in a thin, even surface. Turpentine must be used more freely than with colors, as it evaporates quickly.

Burnishing should be left in the hands of the professional decorator.

Those anxious to experiment will find the "burnishing tool" to consist of a fine blood-stone set in an iron socket with a short wooden handle. This stone is kept smooth by rubbing with soft, thick leather, on which is placed a bit of "burnisher's" putty.

The colors in the borders here given can be selected to suit the taste of the decorator.

Capucine red is a good red, with ivory black in the red and black borders,

The curved patterns for saucers should have

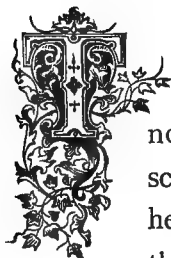
straight duplicates for cups, and the straight borders should be duplicated in a curved pattern for saucers. In this page of borders there are none that will answer for cup and saucer, both in the same pattern.



The above illustration will show the way to apply plain bands to cups and other upright ornaments.

It is impossible to exactly match the colors in the patterns in mineral paints. We have mentioned colors near them in shade, but the colors that have been used are necessarily not "china colors."

ETRUSCAN VASES.



THE method employed for producing these effective ornaments is not difficult, and the following description will make it easily comprehended : In the specimen here given the colors used are Chinese white, ivory black, and *brun sepia*. Trace from the pattern, in the manner already described, the lines and outlines of the figures and borders; but only draw upon the vase the *outlines* of each. Fill these outlines with brown, laid on as smoothly as possible. Send the vase now to be fired, and carefully preserve the traced patterns.

After the first work has been fired, cover the china between the figures and the large spaces between the borders (the fine filling-up work in black is left until later) with a thin coating of

fat oil. This must be applied carefully, and if any runs over the outlines of the figures or borders, it must be neatly wiped away with a cloth wet with turpentine.

The black ground can now be laid as in rule given for laying grounds in powdered colors. This ground can be painted with a brush in tube-colors; but it is difficult to lay smooth when confined to a small space.

After the ground is smoothly laid, all black must be carefully wiped away where it has spread or fallen upon the brown. This can be done perfectly by holding a cloth wet with turpentine over a blunt stick or end of the finger, in the large figures. For delicate work a fine-pointed stick is used wet with turpentine.

When your work is thoroughly dry, take the original tracings, fasten them upon a cushion, and with a needle prick holes quite closely along all the inner lines of both figures and borders.

Take each figure and border separately; place them upon the similar outline on the vase, fasten securely with bits of gum (the gum must

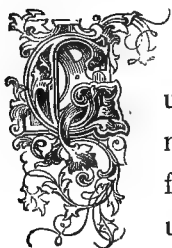


only touch the fired color), and with a wad of soft cotton covered with powdered charcoal "pounce" over all these holes. Remove the tracing paper without rubbing, and refollow the outline thus indicated in charcoal points with a fine "liner" where a fine black line is necessary, and with a larger brush where the work requires it. The color used for this work must be prepared carefully with oil and turpentine to flow freely and evenly, and the brush tried on something else each time it is refilled with color. A single blotted or uneven line would necessitate the entire washing out and retracing of a figure.

The hair of the old man is done in white, and allowed to dry before the fine black lines are put in about the head, and the fine work at the top is done first, to escape rubbing the figures beneath with the hand.

These directions will apply equally well for any vase that is decorated with figures and borders.

MINERAL DECALCOMANIE.



DECALCOMANIE heads, allegorical figures, birds, Cupids, etc., in decalcomanie can be very easily and tastefully combined with the painting upon china, the mineral decalcomanie being prepared for burning in on porcelain, china, white ware, etc.

The appliances necessary for transferring the pictures are few, consisting of transfer liquid for mineral decalcomanie, rubber rollers, and red-sable hair brush.

There is a large variety of these pictures ; a few of these are fruit pieces ; children, rococo style ; birds, butterflies, fine sprays of flowers for cups and saucers ; other flowers of all kinds ; autumn leaves ; vines of ivy leaves, etc.

We will now give the best method for applying these pictures to china, etc.

Give the picture, as well as the article to which it is to be applied, a thin coat of the "transfer liquid," laid on with the brush provided for that purpose. This coating should cover every spot over which the picture is to be laid. After the varnish has become tacky upon the picture, place it between two sheets of damp blotting paper, leaving it there until the paper becomes soft and pliable.

Then lay the picture on the space to be decorated, and roll it down with the rubber roller from the center to the edges. By this process all blisters will be easily removed.

Now place the whole in a vessel filled with water, leaving it there until the paper comes off itself.

A gentle warning must here be given to those who may not have a large stock of patience at their disposal. To amateur artists the old-fashioned oracle, "a watched pot never boils," may be of use. The picture *will come off in time*, but it *must not be helped*. To clean the surface of the picture, let a stream of water flow

over it, and then place the article so as to allow the water to drip off. Should any blisters appear they may easily be pressed down with a damp chamois skin. Small defects may be touched up with La Croix's tube-colors. It is not necessary to remove the varnish which will show around the picture, as all will disappear by the firing process. Let the article dry for twenty-four hours, when it will be ready for firing.

It is necessary occasionally to reduce the transfer liquid with spirits of turpentine, as it becomes thick, thus making it difficult to apply thinly and evenly. Sprays of flowers terminating in fine leaves, buds, and grasses are more difficult to handle than pictures with regular outlines, as the fine bits of color sometimes float off in the water before the decorator is aware.

SPATTER-WORK.



SPATTER-WORK, although "inartistic," can be used with excellent effect in backgrounds.

The process is very simple, thus: Prepare the color thin, as for "Grounds," only using less "fat" and more turpentine. Dip a tooth-brush in the color thus prepared, and rub against a comb held directly over the article to be decorated. A little practice is necessary to spatter evenly.

Beautiful results may be obtained by combining two colors in spatter-work. Thus, spatter, first, a *light* shade of red (rose pompadour), and, when this is dry, spatter over it blue, a rich purple is the result. A light red is advised, for, if a dark shade is used, it must be fired before the blue is spattered on it, thus necessitating two firings. The intense heat re-

quired for a "hard" or dark shade of red completely burns out the light tints. Yellow, spattered on blue, makes a bright green; yellow on red, an orange color.

If a design is to be painted over this spattered ground, the outline of the design must be carefully cut out in paper and pasted on the china before the "spatter" is put on. The color is then spattered over the entire surface; when dry, the paper can be removed.

Ferns are very pretty reproduced in this way. A beautiful effect is made by going over the right side of green ferns (dry will answer as well if perfect in form) with a brush filled with very thin gum-water. Only enough is required to make the fern stay in its place a short time. The ferns are then fastened in graceful groups upon a vase or plaque in cream-tinted Minton ware. When the fern is quite dry, spatter over all a ground of light sky blue; and, when this is dry, carefully remove the ferns with the point of a penknife. Any gum remaining on the china will disappear in the firing.

GILDING.



WHEN a fine gilded edge is desired on cup, saucer, or plate, it is better to leave it to the professional decorator where the article is fired. For this style of decoration a "table-wheel" or turn-table is required. This table can be bought ready for use, and is simply a round, flat slab placed on a pointed iron rod upon which it easily revolves when turned by the hand; the rod must stand firmly upon a heavy rod or rest.

A *broad band* can be placed on a plate, saucer, or any flat surface, without the aid of this table. Have ready a pair of pencil dividers, and in the pencil-holder place a short, sharp-pointed pencil; Faber's china pencil is preferable, but, if the ordinary lead-pencil is used, the china must be coated with turpentine.

In the *exact center* of the article fix a bit of modeling wax or a large wafer ; upon this stick a small, round piece of card-board. *In the center* of this card, when dry and fast, insert the point of the divider. Decide upon the width of the band to be measured, fix the dividers in position with the pencil touching the china at the distance from the rim that you wish the width of the band, and carefully describe the circle. Be sure that the pencil marks the china as it revolves. The band thus outlined can be gilded or colored.

Gold comes ready prepared by La Croix, only needing the addition of a little turpentine. If the powder is obtained it must be prepared with oil and turpentine, as in "Directions for Colors." It looks when ready for use like thin brown paint. The china should be well covered with gilding, not too thin, and as even as possible ; any spot thicker than the rest will stand out in relief after firing.

A fixed pattern for the borders of cups, saucers, etc., must be traced upon the china by

“prick tracing.” This is done by preparing a strip of paper the desired length ; on one side draw or trace from the original a small section of the pattern. Fold the paper over and under beneath the tracing with perfect regularity, as a lady folds a paper for cutting the pattern of “scallops.” Then with a pin or needle prick holes closely together over the lines of the tracing, each time pushing the pin entirely through the folds of paper ; now paste the strip of paper (on which should be the entire length of the pattern in lines of small holes) upon the rim of the china. With a leather stump or pad covered with powdered charcoal dust over all these holes. When the background is dark, powdered starch or color will do as well. When the paper is torn off the pattern is found upon the china in small points of charcoal or starch. The lines must be immediately drawn with pencil, and the color or gold is laid on slowly and with great care.

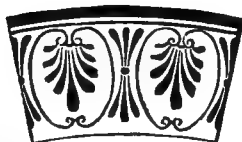
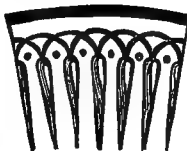
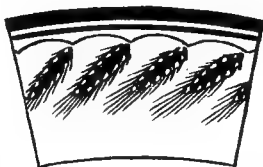
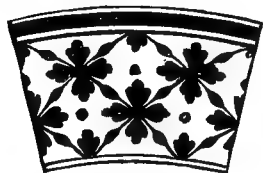
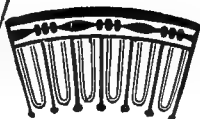
MONOCHROMES.



DECORATIONS in "monochrome" are painted in but one color, and for beginners this style is perhaps the most satisfactory. The original is of course first traced, and then copied in one color ; lights and shadows are made with thin washes for the lights, and several washes to deepen the shade when desired ; clouds, ground, and any large surface can be laid on flat by using the dabber, and the edges of clouds should always be finished in this way ; where white is used in the original or a very high light the china can be left bare.

For figures in monochrome the Grecian are best, the broad washes of color in the flowing drapery being very effective.

The old blue crockery used by our grandmothers can also be very beautifully reproduced in



monochromes of brown, light blue, or coral, the latter being safe to use alone in this case, because it can be fired at a low temperature.

This same old blue ware, if you are fortunate in possessing articles in good condition, can be made very effective by gilding the edges and *outlining* all the blue images and figures with gold. A touch here and there of leaf or flower in capucine red adds to the beauty of the decoration. This must, of course, be refired, and it will fire well, although this kind of ware is not "china."

Decoration in Monochrome is of wider application than might be supposed; if nicely managed and an appropriate color used, the effect is very pleasing. Amateurs who have not yet mastered the art of blending colors will find this style of decoration more suited to their capabilities than any attempt at designs in colors, which might end in failure.

SILHOUETTES.



BIRDS, animals, and figures in Japanese styles are extremely pretty in silhouette ; and if a Japanese picture is copied, reproduce, as nearly as possible, upon the articles being decorated the characteristic confusion of grouping. The figures are all traced upon the china and then filled in with color as nearly as possible. Too much turpentine must not be used, or the color will spread over the outline, as well as refuse to lie evenly. Any irregularity of the edges of silhouettes must not be touched while the paint is wet. After the color is dry, it can be *breathed upon* and softened ; in this way, by using a clean brush, the artist can even and smooth the outline in a neat manner.

FIRING.



WHEN several firings are required to complete a decoration, and gilded bands and borders are also added, the artist will find that "*firing*" is quite an expensive item in the summing up of the costs in china painting.

In this work the directions for painting are given with reference to but one firing, and it is consequently of great importance that the different degrees of heat requisite for the successful fusing of each color should be well understood before the artist selects the colors for his work.

Care must be taken that the hard colors, those that require the greatest heat to fuse, should not be placed upon the same article with those lighter and more easily fused, as the in-

tense heat required to properly fire the hard (generally the dark) color, would entirely ruin the more fusible tints, which are light sky blue, light carmine A, pearl gray, warm or sunset gray, ivory yellow, and all the light colors.

It will therefore be seen that if extremes in colors are desired upon the same article—for instance, dark red, with light blue or yellow—the red or hard colors must be placed upon the china first and fired, then the lighter colors are laid, the second firing being at a lower temperature.

When but few articles are decorated, it is a safe and convenient plan for the amateur to send them for firing to the professional decorator, particularly if gilding is desired, for gilt bands are extremely awkward embellishments for beginners to undertake.

Small kilns for home use, called muffles, are sometimes used very successfully, and for those living at a distance from firing establishments these muffles are certainly great conveniences for firing small articles.

The Amateur's Miniature Kiln is highly recommended for this purpose, and can be heated in an ordinary kitchen stove or range.

This kiln is patented by N. M. Ford, of Port Richmond, New Jersey.

The process of "firing" in these miniature kilns can in most cases be completed in two hours. This time includes gradual heating and cooling.

Amateurs who do not understand the use of kilns for firing must first practice with pieces of china having dabs of different colors upon them, in order to gain the experience necessary to "fire" successfully, and thus lessen the chances of spoiling what has cost them time and trouble.

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